ISSUE 03

AGRIVIEW

JUNE 2013

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Government of Saskatchewan
Ministry of Agriculture

Minister's Message

It was a long and challenging winter but we've finally turned the corner with cattle being moved out to pasture and the growing season getting started. Thankfully, run-off issues were limited in most areas and our Saskatchewan producers are now in the field.

Our government continues to work to support farmers and ranchers and grow the industry. Recently, I was joined by Minister Ritz to announce a renewed commitment to the Farm and Ranch Water Infrastructure Program (FRWIP). Over the next five years $65 million will be invested to help establish wells, dugouts, pipelines and irrigation. The program now also includes a new component for agricultural business development for intensive livestock and horticultural operations. As well, value-added agricultural businesses and non-district irrigators are now eligible for funding under the program.

Since 2008, when FRWIP was first introduced, more than $49 million in federal-provincial funding has been invested to help establish nearly 5,500 wells, dugouts and pipelines. In addition, since 2007, the federal and provincial governments have provided $20 million for funding which has increased irrigation capacity by nearly 12,000 acres. Establishing secure water sources is crucial to the long-term success of farmers and ranchers and is essential to the future growth of Saskatchewan's agriculture industry and economy.

I also recently announced a $9 million Market Development Program that will help our industry grow nationally and internationally. Over the next five years, this program will help Saskatchewan producers, industry groups and agribusinesses showcase our products beyond our borders. The program will also help bring international buyers to Saskatchewan. For the industry, this means accessing existing and developing markets to sell their products. For producers, this means growing and selling more of what they produce and for all Saskatchewan citizens, it means a stronger provincial economy and a better quality of life for everyone.

Both of these programs are a part of Growing Forward 2 which is the federal-provincial agriculture policy agreement that will see $388 million invested over the next five years in Saskatchewan. These programs also tie into the Saskatchewan Plan for Growth that has goals of increased crop production by 10 million tonnes, increased agricultural exports by $5 billion, to be a world leader in biosciences and increased value-added opportunities, all by 2020. I'm confident these programs will help grow our industry and benefit producers well into the future.

In closing, I want to wish all producers a safe and productive year.

Sincerely,

Lyle Stewart

STORY SNAPSHOTS

Invasive weeds

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Cover: Warm weather and long days give an opportunity for families to enjoy a beautiful Saskatchewan summer. Photo by Regional Livestock Specialist Jenifer Heydon.

Government of Saskatchewan
Ministry of Agriculture

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To view this publication online, visit www.agriculture.gov.sk.ca/programs-services.

Watch out for invasive weeds

by John Hauer, PAg
Regional Forage Specialist, Kindersley
Regional Services Branch

and

by Nadia Mori, MSc, PAg
Regional Forage Specialist, Watrous
Regional Services Branch

June is the month for wild flowers. The native prairie and tame forage on the hills and roadsides can be very scenic with nature's palette of colourful wildflowers. But are they all native plants? Some could be invasive weeds as June is also the time when most invasive weeds are flowering. Many invasive weeds originate as ornamental plants and can appear pretty and harmless. Invasive plants are far from harmless and there are obligations to control infestations as outlined in the *Weed Control Act*.

Preventing infestations and avoiding the spread of these undesirable plants is the most economical and ecological form of control. There are numerous ways that invasive weeds can spread: hauling infested hay or feed from outside your area, spreading infested gravel and contaminated seed. Birds, wildlife and livestock can carry and spread weed seeds as well.

Early detection and rapid response of a new invasive weed outbreak is critical. If you see a plant you do not recognize growing in a strange place, get it identified. This is called early detection. For help in identifying these plants contact a Regional Forage Specialist or the Crop Protection Lab. The process of identification may reveal that this plant is a small patch of an invasive weed like Leafy Spurge, Common Tansy or Dames Rocket. If so, then the patch must be controlled immediately using the appropriate measures. This is called rapid response. Conversely this strange plant may turn out to be a native plant species which happens to be more showy and vibrant this season.

Dames Rocket growing underneath grain bin

FOR MORE INFORMATION on early detection and rapid response (EDRR):

- Contact your nearest Regional Forage Specialists; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

ASTER YELLOWS IN 2013?

by Lyndon Hicks, PAg
Regional Crops Specialist, Yorkton
Regional Services Branch

and

by Scott Hartley, PAg
Provincial Specialist, Insect and Vertebrate Pests
Crops and Irrigation Branch

The aster yellows outbreak observed in 2012 has left many farmers wondering what 2013 will bring. The short answer is it is not possible to make an accurate prediction. There are, however, known historical trends. Since the year 2000, only 2000, 2007 and 2012 aster yellows levels were considered outbreak years.

The aster yellows disease is caused by a phytoplasma which infects susceptible plants and spreads from plant to plant through the feeding of the aster or six-spotted leaf hopper. There are many species of leaf hoppers in Saskatchewan but the six-spotted leaf hopper is the primary vector. It is important to understand that not all six-spotted leaf hoppers are infected with the phytoplasma that causes aster yellows.

The aster yellow phytoplasma can overwinter in the roots of perennial crops and weeds creating a reservoir for the disease especially in the year following an outbreak. Keeping fields clean of perennial weeds is one defence farmers can utilize.

Generally, aster leaf hoppers do not overwinter well in Saskatchewan so it is the migratory populations that pose the greatest risk. Depending on air currents, populations migrate north from the Southern and Central United States in early to mid-May. However in the last decade there have been more southerly winds coming in early April. It is not unusual to have high populations of leaf hoppers in Saskatchewan, however, it is uncommon for populations to have high infection rates as in 2012. The reasons for the high infection rates are not known.

For field crops there is not much that can be done to manage or prevent the disease. Early seeding and controlling perennials weeds are the only feasible defence farmers have. Insecticides can control the leaf hoppers but it has not been shown to be economically viable. Fungicides will have no impact on the disease. There are no commercially available cultivars or resistance ratings available for aster yellows for any crop grown in Saskatchewan. The aster yellow infection rates witnessed in 2012 was likely an anomaly and it could be several years before we see comparable levels again.

FOR MORE INFORMATION

- Visit the Saskatchewan Ministry of Agriculture website at www.agriculture.gov.sk.ca and search 'seed testing'; or
- Contact your Regional Crop Specialist; or
- Contact the Agriculture Knowledge Centre at 1-866-457-2377.

Aster yellows disease was at high levels in 2012.

Identifying the proper crop stage to control fusarium head blight

by Rory Cranston, AAg
Irrigation Agrologist
Regional Services Branch
and

by Sean Miller, PAg
Integrated Pest Management Agrologist
Crops and Irrigation Branch

Saskatchewan producers are becoming more aware, knowledgeable and active when it comes to controlling diseases in their crops. However, one difficulty most producers still face is properly timing a fungicide application to get the optimum level of control.

The importance of timing is critical as most fungicides will only prevent disease development on a plant - not cure it. Apply a fungicide too late and disease will already be established in your crop, apply too early and the fungicide's effectiveness can end while there is still significant risk of disease.

Determining the best time to spray can be difficult. Proper staging can be elusive with unpredictable weather conditions. For example, a hot summer in Saskatchewan can cause a crop to develop extremely fast, with the optimum stage passing in less than a day. The variations in Saskatchewan climate from year-to-year affect development enough to make it impossible to have a fixed date for fungicide application. In addition, if weather conditions are not favourable for disease development, it can eliminate the need for a fungicide application.

Fungicide timing for Fusarium Head Blight

In the 2012 growing season, there were numerous inquiries about the proper timing of a fungicide application to control Fusarium Head Blight (FHB) in wheat. If weather conditions are favourable for disease development, the proper time to apply is when 75 per cent of the wheat heads are fully emerged to when 50 per cent of the heads on the main stems have visible anthers (see figure 1). These stages usually occur near the middle of July, and at most will last three days. The current recommended wheat seeding rate of 1.6 bushels per acre encourages tillering, which will increase the variation of flowering and increase difficulty when staging the crop. Increased seeding rates will reduce tillering and flowering variation, making it easier to select the proper stage for fungicide application.

FOR MORE INFORMATION

- Call the Agriculture Knowledge Centre at 1-866-457-2377; or
- Contact your nearest Regional Office.

Figure 1. FHB application timing on wheat

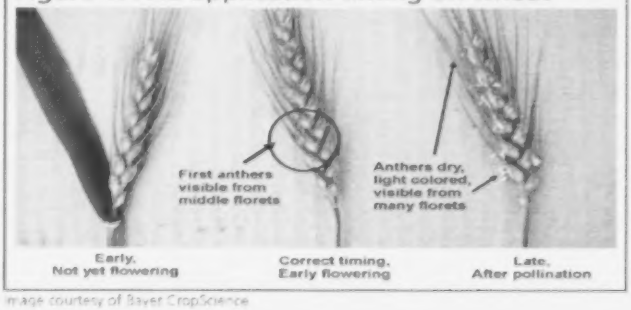

First anthers visible from middle florets
Anthers dry, light colored, visible from many florets
Early. Not yet flowering
Correct timing. Early flowering
Late. After pollination

Image courtesy of Bayer CropScience

THE ROOT OF THE PROBLEM

by Sherrilyn Phelps, M.Sc., PAg, CCA
Regional Crops Specialist, North Battleford
Regional Services Branch

Root rots can be a problem in field crops, especially under high moisture situations as seen in 2012. Crop losses can range from minimal impact to complete crop loss under extreme situations, and can be patchy within a field. The disease can occur at any time during the growth of the plant and starts with infection of the root, or below-ground stem regions. The disease can spread to other below-ground plant tissue resulting in poor root development and function, restricted plant growth and browning of below-ground plant parts. It is common for symptoms to advance to chlorosis, or yellowing of above-ground portions, stunting of plants and eventual plant death. Poor pod set and premature ripening are also signs of root issues.

The organisms that cause root rots can also cause seed and seedling diseases, such as seed rots, seedling blights, stem rot and wilts. The soil fungi that are most prevalent in Saskatchewan that can cause problems are *Pythium*, *Fusarium* and *Rhizoctonia* species. However, in 2012 an *Aphanomycete* species was also identified as a causal agent for root rots in peas.

Controlling root rots is difficult as the organisms can infect the plant after seed treatments have lost their efficacy and there are no foliar fungicides that are effective. Identifying root rots and the organism responsible can be important for planning future rotations. Samples of infected roots can be sent to the Crop Protection Lab for identification.

Unfortunately there is little producers can do to eliminate root rots once they have been identified in the field. Rotation and field selection are important for prevention. However, environmental conditions are key to the severity of the disease, as moisture is necessary for the disease to thrive.

FOR MORE INFORMATION

- Contact your local Regional Crops Specialist; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

Wet soils can increase the risk for root rot.

It pays to know your pre-harvest intervals

by Erin Campbell, MSc, AAg
Regional Crops Specialist, Watrous
Regional Services Branch

Not knowing your pre-harvest intervals (PHI) when spraying could continue to cost you long after your crop is harvested. Failing to meet the PHI requirements could mean pesticide residues in your grain could exceed the maximum residue levels (MRL) allowed in your crop, and significantly affect marketability.

The pre-harvest interval (PHI) refers directly to the number of days that must pass between the time of the last application of a pesticide and when the crop is cut for harvest. When a "crop is cut" for harvest refers to the point at which the plant is physically cut. The PHI does not include the time the crop is lying in the swath prior to combining. The residues from products used for pest control are only metabolized and broken down by living plants, not by dead/cut plants in the field.

PHI can vary depending on the crop being sprayed and the product being used. The same product may be registered for use on multiple crops but the PHI will be different for each of those crops. The time of spraying in the growing season is also important. In canola, for example, pests that can become a problem later in the season—such as bertha armyworms and/or diamondback moths—can require spraying pesticides closer to harvest. For late-season spraying, consider using a product with a lower PHI, such as deltamethrin (*Decis*) or lambda-cyhalothrin (*Matador, Silencer*)—which have a PHI of seven days—instead of products such as chlorpyrifos (*Lorsban, Pyrinex, Nufos, Citadel*)—which has a PHI of 21 days—or cypermethrin (*Ripcord*)—with a PHI of 30 days. All commercial products have clearly defined PHIs on their labels and this information can also be found in *The Guide to Crop Protection*.

Producers should keep in mind the fact that fungicides, crop desiccants and herbicides also have PHIs. Proper crop staging is closely linked to PHI. Applying products beyond the staging window indicated on their labels or in *The Guide to Crop Protection* can often result in pesticide residue levels that exceed maximum residue level (MRL) limit.

FOR MORE INFORMATION

- Refer to *The Guide to Crop Protection* on the Saskatchewan Agriculture website at www.agriculture.gov.sk.ca; or
- Contact the Regional Crops Specialist at your nearest Regional Office.

GREEN MANURE TERMINATION CONSIDERATIONS

by Patrick Mooleki, PhD, PAg
Soil/Nutrient Management Specialist
Agriculture Knowledge Centre

Green manure is a crop that has been grown, terminated prior to seed set and then either incorporated into the soil or left on the surface. It helps improve soil quality by increasing soil organic matter, which in turn, helps increase soil aggregation, water-holding capacity and nutrient supply. Any crop can be used for green manure, but leguminous crops are typically used because they also fix nitrogen from the air. In Saskatchewan, field pea, lentil, chickling vetch, sweet clover and red clover are the common legume green manure crops.

It is important to allow the crop to develop sufficient biomass and to fix sufficient N, but the crop must be terminated before it consumes too much water and starts to translocate N from the plant tissue to the seed. Field pea, lentil and chickling vetch are annuals that should be terminated at full bloom. Sweet clover, a biennial which is usually under-seeded in a grain crop, should be terminated at the bud to 10 per cent flower stage. Perennials, such as alfalfa and red clover, are also alternative choices for green manure in moist regions. They should be terminated in early bloom.

For drier areas, legume green manure crops should be terminated before the end of June. This allows enough time to recharge the soil moisture before the establishment of the next crop.

Studies show little difference in effectiveness or in the resulting nitrogen benefit between mechanical (e.g. a mower or crimper) and chemical termination. The choice is based on cost, equipment availability and management system (no-till, conventional, organic, etc.).

Once terminated, the crop can be left on the surface—which reduces the risk of soil erosion and moisture loss, and enhances snow trapping and soil moisture replenishment—or ploughed into the soil, which speeds up decomposition and mineralization of nutrients.

FOR MORE INFORMATION

- Contact the Agriculture Knowledge Centre at 1-866-457-2377; or
- Visit the Saskatchewan Agriculture website at www.agriculture.gov.sk.ca.

An example of terminating by crimping

Protecting beneficial insects

by Geoff Wilson, M.Sc., PAg.
Provincial Specialist, Apiculture
Crops and Irrigation Branch

and

by Scott Hartley, PAg
Provincial Specialist, Insect and Vertebrate Pests
Crops and Irrigation Branch

Protecting crops from insect pests and diseases is a very important component to farming. Insecticides can be an important crop production tool to maximize yields on your farm when insects pose a serious threat. However, fields are also shared by many beneficial insects that positively affect yield so a careful decision of when and how to apply insecticides must be made.

The role of these beneficial insects varies from pollination to crop protection. Many pollinators like honey bees, bumble bees, other wild bees and flies live in and beside fields. These bees are an important part of many cropping systems. Most people are aware that pollination is necessary for most fruit and vegetable production. However, studies show that canola also benefits from pollination. While canola yields can be good without pollinators, recent studies have indicated that adequate pollination can result in a 10 to 15 per cent increase in canola yield.

In addition to pollinators, there are many other beneficial insects, such as parasitic wasps, that can assist producers in keeping pest insect populations in check.

Here are some general practices to consider for protecting beneficial insects when making an insecticide treatment decision:

1. Use economic thresholds. This can save unnecessary applications of costly pesticides.
2. Use the least toxic option registered for the crop. Refer to the *2013 Guide to Crop Protection* for residue hazard ratings.
3. Take measures to minimize drift, such as ensuring there is little wind during application.
4. Apply insecticides after 8 p.m. until dusk when most bees have finished foraging.
5. Consider that many of the seeds being planted, like canola and corn, are coated with systemic insecticides that can affect non-target insects. Apply best management practices for seeding. Best management practices can be found on the Pest Management Regulatory Agency website at http://hc-sc.gc.ca/cps-spc/pubs/pest/_fact-fiche/pollinator-protection-pollinisateur/index-eng.php.
6. Realize that pollinators are attracted to many flowering crops and weeds.

Pesticides are an important tool in agriculture but care must be used when deciding on pest control to maximize the return to your farm. With good decision making, application methods and timing, it is possible to control pests while maximizing the role and benefit of insects that contribute to the total yields of your farm.

FOR MORE INFORMATION

- Contact Geoff Wilson, Provincial Apiculture Specialist, at 306-953-2304 or by email at geoff.wilson@gov.sk.ca.

BOTRYTIS: A FRUIT DISEASE TO WATCH IN 2013

by Forrest Scharf, BA, BSA, AAg
Provincial Specialist, Fruit Crops
Crops and Irrigation Branch

Botrytis or grey mould is a fungus that causes loss of fruit through post-harvest infection. Botrytis was a problem last year on strawberry and raspberry, and, with this year's late wet spring, it will likely be a problem again.

Botrytis produces hardy overwintering structures called sclerotia that appear as dark scab-like growths on dead and dying plant stems. The sclerotia germinate in the spring and produce either tiny cup-like structures known as apothecia, or hair-like growths known as mycelium. The fungus then produces spores that are released in cool humid weather, typically when fruit plants are flowering. The spores can be carried for relatively long distances by wind and rain and land on plants where infection occurs. Botrytis is most likely to infect plants that are already stressed.

Although the fungus enters the plant through blossoms, it goes dormant during the warm summer, then begins to spread later in the season when the fruit begins to ripen, potentially leading to significant post-harvest fruit loss. Less often, it is also known to cause "damping off", stem cankers and leaf spots.

In fruit, botrytis infection first appears as flower blight. Later in the season, it causes fruit rot and mould (see photo).

Botrytis is a common disease affecting many broadleaved crops besides fruit (e.g. potato, onion, sunflower, chickpea, lentil, alfalfa, etc.).

When controlling botrytis in fruit crops, it is important to ensure the plant is healthy by applying appropriate nutrients and removing all sources of disease inoculum. There are also products registered to prevent the infection and spread of botrytis. These are best applied starting in the early bloom period and then at seven-to-10 day intervals according to pesticide label recommendations.

FOR MORE INFORMATION

- Contact Forrest Scharf, Provincial Fruit Crop Specialist at 306-787-4666 or forrest.scharf@gov.sk.ca.

Botrytis on raspberries.

Irrigation Crop Diversification Corporation field program

by Gary Kruger, PAg, CCA
Irrigation Agrologist
Crops and Irrigation Branch

The Irrigation Crop Diversification Corporation(ICDC) has finalized its field program for the 2013 season. The variety testing of cereals, oilseeds, pulses and forage hosted at the Canada-Saskatchewan Irrigation Diversification Centre (CSIDC) research facility in Outlook continues. Forages include grain corn, silage corn and alfalfa. This research forms the basis for the Crop Varieties for Irrigation publication that ICDC updates and publishes early each year. Nitrogen rate demonstrations at CSIDC will evaluate the nitrogen response of grain and forage oats sown on alfalfa breaking one and two years after removal of the alfalfa stand.

ICDC will also be conducting on-farm demonstrations throughout the irrigation region. These include:

- The application of fungicide to canola, wheat and flax under irrigation;
- Several timings of application will be compared for their impact on seed yield and quality;
- A plant growth regulator will be evaluated for its control of stem elongation and lodging of wheat under the high moisture canopy of irrigated crop;
- An evaluation of copper fertility on sandy irrigated soils using soil tests, tissue analysis and grain copper concentration; and
- Three weather stations located throughout the Lake Diefenbaker region will monitor weather variables to model water use in irrigated crops and predict irrigation water needs during the growing season.

New improvements in nozzles are demonstrated at CSIDC.

Projects in southwestern Saskatchewan will determine alfalfa forage yield from applications of phosphorus, potassium and zinc at Miry Creek and manganese to alfalfa stands at Chesterfield. The impact of salinity on grain yield will be assessed using GPS and yield monitoring technologies at Riverhurst.

Once completed, the results of these studies will be available in the ICDC annual report which is prepared in time to be presented at the annual general meeting, this year slated for December 3 and 4, 2013 in Moose Jaw.

FOR MORE INFORMATION

- Contact the Irrigation Agrologist, Gary Kruger, at 306-867-5524.

CSIDC IRRIGATION FIELD DAY

by Garth Weiterman, PAg
Manager, Agronomy Services
Crops and Irrigation Branch

The Canada-Saskatchewan Irrigation Diversification Centre (CSIDC) will hold its annual irrigation field day and tradeshow on Thursday, July 11, 2013 in Outlook, Saskatchewan. The focus for the 2013 event is on soybean agronomy, solar radiation powered irrigation pivots and potato and canola variety trials.

The day's events will include a review of the ongoing regional and co-op irrigated variety trials and the Irrigation Crop Diversification Corporation's variety adaption trials for cereals, oilseeds, pulse and forage crops, agronomy, corn and vegetables. A tour featuring variable rate irrigation technology installed on three pivots at the Centre and the tile drainage system at CSIDC will take place. Industry representatives will be in attendance displaying equipment and materials currently available for tile drainage installations. A morning field tour will provide an overview of the projects currently underway at CSIDC. In the afternoon, tours will focus on the specific issues of irrigation scheduling, demonstration of drainage tile installation and automation of pivot operation.

Registered certified crop advisors will be able to earn Continuing Education Units at the event. The day will begin at 9 a.m. with a tradeshow. The morning tour begins at 9:30 a.m. followed by lunch at noon. The afternoon tours will begin at 1:30 p.m. There is no charge for admission.

FOR MORE INFORMATION

- Contact Irrigation Agrologist Gary Kruger at 306-867-5524, or
- Contact Manager of Agronomy Services Garth Weiterman at 306-867-5528.

ICDC tests fungicide timing for bean production in the Lake Diefenbaker development area.

Does Estrus Synchronization and Artificial Insemination work?

by Travis Peardon, BSa, PAg
Regional Livestock Specialist, Outlook
Regional Services Branch

Does Estrus Synchronization and Artificial Insemination Work? If you ask this to Ivan and Lee Carpenter of Hanley, Saskatchewan, or Brent and Karin Griffin of Elbow, Saskatchewan, the answer is a resounding yes. The Carpenters and Griffins took part in a demonstration project that took a close look at this question.

Both producers enrolled 40 heifers in the project. Twenty heifers in each herd were turned out with a bull for natural service. The other 20 heifers were synchronized using a progesterone implant-based fixed-time artificial insemination (AI) protocol and bred to Angus bulls with proven track records for calving ease and exceptional growth. The entire process only required three times through the chute with the animals becoming more accustomed to handling each time. Fifteen days following AI, a clean-up bull was turned out to breed any heifers that did not become pregnant as a result of AI.

The heifers in the estrus synchronization programs achieved a 76 per cent conception rate in the Carpenter herd and a 70 per cent conception rate in the Griffin herd. AI sired calves at each location were born over a 10-day period. Conception rates for the natural service group of heifers will be determined when this group of animals finishes calving. Another producer in Saskatchewan also took part in the program, but calving results were not available at the time of writing.

Calves arriving early in the calving season will also increase the likelihood of the heifers staying productive. Heifers calving early in the calving season will have a longer recovery period before the next breeding season. This allows for more of them to breed early again and stay in the herd.

Both the natural service calves and the estrus synchronization and AI calves will be weighed at weaning. This will allow for a full economic analysis of estrus synchronization and AI in comparison to natural breeding.

This project was funded by the Ministry of Agriculture's Agriculture Demonstration of Practices and Technology's (ADOPT) program, with funding through the federal-provincial Growing Forward framework, and administered by the Rudy Feeder Co-op at Outlook. Veterinary collaboration for this project was provided by Dr. Colin Palmer of the Western College of Veterinary Medicine.

FOR MORE INFORMATION

- Contact Travis Peardon, Regional Livestock Specialist, Outlook Regional Office at 306-867-5504; or
- Colby Elford, Regional Livestock Specialist, Moose Jaw Regional Office at 306-694-8953.

Dr. Colin Palmer and Brent Griffin discussing artificial insemination.

HEIFER MATURITY AT BREEDING

by Chelsey Carruthers, MSc., AAg
Regional Livestock Specialist, Watrous
Regional Services Branch

A long-standing rule of thumb has been to feed replacement heifers so they reach 65 per cent of mature body weight at breeding time. This practice has been recommended to ensure heifers reach puberty well before breeding to maximize fertility. However, recent research has suggested that heifers can be developed at a lower rate of gain from weaning through the winter feeding period without negatively affecting reproductive performance.

Researchers at the University of Nebraska's West Central Research and Extension Center managed weaned heifers in two groups. One group grazed dormant pasture for a total of 99 days and corn residue (corn stalks left over after harvesting the grain) for 74 days, followed by 40 days in a traditional dry lot system. The second group grazed dormant pasture for 98 days before being fed in a dry lot system for 112 days, where they were fed to reach 65 per cent of mature weight at breeding. For the last 40 days before breeding, both groups were managed and fed together in a dry lot system. All heifers received one pound per day of a 28 per cent crude protein supplement while they were on dormant pasture or corn residue, as these feeds did not contain sufficient protein to meet the heifers' requirements.

The heifers in this project were synchronized and bred by artificial insemination (AI), then exposed to bulls for 60 days. Although heifers developed in the dry lot system were 78 pounds heavier on average at breeding, there was no difference in per cent of heifers cycling, conception following AI, or overall pregnancy rate. Feed intake, average daily gain and feed efficiency were also similar between the two groups. Heifers can be fed for a more moderate rate of gain and bred at lower body weight, but still need adequate feed resources to meet their nutritional requirements.

Similar research focusing on production systems common to Saskatchewan is currently underway at the Western Beef Development Centre near Lanigan. Their work will compare bale grazing to dry lot feeding for heifer development.

FOR MORE INFORMATION

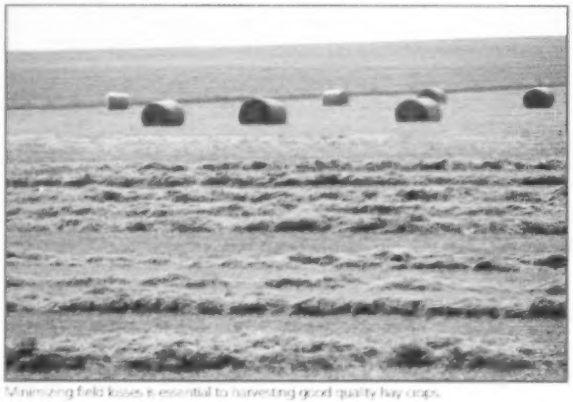
- Contact your nearest Regional Livestock Specialist; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

Forage harvest management

by Sarah Sommerfeld, PAg
Regional Forage Specialist, Outlook
Regional Services Branch

As haying season approaches, producers are faced with the challenge of harvesting good quality forage crops in a timely manner that also decrease the potential for field losses.

Stage of maturity at the time of cutting is important in determining hay quality. Delaying harvest to maximize yield sacrifices forage quality. Finding the balance between yield and quality is key. In Saskatchewan, the point of balance generally occurs the third week of June, but is dependent on growing conditions and forage species. For alfalfa, the recommended cutting time is 10 per cent bloom. For grasses, the best time to cut is following the boot stage but just prior to heading.



Minimizing field losses is essential to harvesting good quality hay crops.

Conditioning the hay is recommended. Conditioning cracks or splits the stem, allowing moisture to be released and decreasing drying time. Attention must be paid to roller gap and pressure to ensure that conditioning action is not over aggressive. Windrows should be as wide as possible to decrease drying time.

Raking of windrows together can aid in dry down time, however, raking does cause leaf loss. Windrows that are spread wide are raked to form a swath for baling. Raking windrows together inverts the swath and places them onto drier ground. When raking alfalfa windrows, rake early morning when the dew is still on to minimize leaf loss.

Bale type and size determines safe moisture levels for storage. Large, round hard core bales can be baled at 16 to 17 per cent moisture. Large, round soft core bales can be baled at 18 to 20 per cent moisture. Large square bales require moisture content between 12 to 14 per cent. Small square bales can be baled at slightly higher moisture, around 18 per cent.

Ensuring that hay is cured is important. High daytime temperatures can result in quick drying conditions. Testing the hay with a moisture probe may indicate that the hay is at safe moisture content to bale. However the quick drying period may not have left adequate time for the hay to cure. Baling hay that is not cured can lead to heat damage and mould formation. A simple twist test will indicate if the hay is cured or not. Grab a handful of hay, twist and if the stems break or snap, the hay is cured.

FOR MORE INFORMATION on forage harvest management:

- Contact your local Regional Forage Specialist or the Agriculture Knowledge Centre at 1-866-457-2377.

CELEBRATING THE 15TH ANNUAL NATIVE PRAIRIE APPRECIATION WEEK

Plans are underway for Saskatchewan's 15th Annual Native Prairie Appreciation Week (NPAW), a celebration dedicated to increasing awareness and appreciation of native prairie ecosystems and their importance to Saskatchewan's environmental and agricultural sectors. Native prairie, a grassland ecosystem influenced by the interaction of climate, fire and grazing, supports rich and highly specialized plant and animal communities. In Saskatchewan, native prairie vegetation is dominated by spear grasses, wheat grasses and blue grama grass.

Saskatchewan has led the way in recognizing the importance of one of the world's most threatened ecosystems. Provincially declared as the third week in June since 1999 by the Saskatchewan Ministries of Agriculture and Environment, NPAW was also declared for the first time municipally in 2011 by the Cities of Moose Jaw, Regina, Saskatoon, Swift Current and Weyburn.

Saskatchewan was the first province to officially declare a provincial grass when in 2001, needle-and-thread grass was chosen. More information on this provincial grass emblem can be found at www.qp.gov.sk.ca/Protocol/Sask-Emblems.

Saskatchewan Prairie Conservation Action Plan (SK PCAP) is encouraging all families to embrace an important part of Saskatchewan's heritage by taking part in one of the many activities during NPAW **June 16-22, 2013**.

Activities planned to celebrate the week include:

- **Poster Contest**: Children and youth are invited to celebrate native prairie through their artwork for a chance to win a prize.
- **Passport Contest**: Saskatchewan offers many ways for citizens to see, explore and discover the native prairie attractions. Check items off the list throughout the summer and you can be a winner.
- **SK PCAP/NPAW Booths:** Stop by and pick up the latest partner materials, native seed packets or come learn about native prairie at the Regina and Saskatoon Farmer's Markets and at National Aboriginal Day in Regina.
- **Partner Events/Workshops**: Attend the annual Society for Range Management tour which has joined forces with the Saskatchewan Pasture School to offer a two-day event on June 18-19 in the Weyburn and Big Muddy Badlands areas.

FOR MORE INFORMATION

- Visit the SK PCAP website at www.pcap-sk.org;
- Contact the SK PCAP office at306-352-0472; or
- Email pcap@sasktel.net.

Conserving water in intensive hog operations

Hog operations use a lot of water, which adds to a producer's cost of production. Even if the water comes "free" from a well rather than being purchased from the municipal water supply, excess water usage will increase the amount of manure slurry produced by the hogs, leading to higher manure handling costs.

In an industry like the hog sector that operates on tight margins, the difference of a few cents per head in the cost of production can mean the difference between a business' profit and loss.

Dr. Bernardo Predicala and his research team at the Prairie Swine Centre, with the financial support of the Saskatchewan Agriculture Development Fund, set out to find the best ways for a hog producer to conserve water.

Watering

The researchers prepared a number of pens in the Prairie Swine Centre's barn facility. Each pen had a commercial feeder and one of three types of drinkers: a nipple, a nipple with side panel, and a trough with side panel and constant water level. Twelve grower-finisher pigs were assigned to each pen.

Over the course of one growth cycle (12 weeks), the drinkers were rated based on:

- Total amount of water used;
- Amount of water wasted;
- Level of water contamination;
- The animals' average daily gain (ADG); and
- The animals' daily feed intake (DFI).

Dr. Predicala's team found that the pigs used (consumption plus wastage) 6.7 litres per day per pig with a trough, 8.025 litres per day per pig with the nipple with side panel and 8.175 litres per day per pig with the nipple. They found that the trough wasted approximately 60 per cent less water than either of the nipple drinkers.

Not surprisingly, it was found that the water taken from the trough had a significantly higher level of organic contamination than the water taken from either of the nipple drinkers; however, this had no significant effect on the pigs' ADG or DFI.

Cleaning

The team then looked at barn cleaning and the effects of floor type, sprayer nozzle and pre-soaking on water consumption and man-hours.

Pre-soaking the floor prior to power washing obviously consumes a lot more water than straight power washing. The researchers determined that the thick crust of manure that builds up on the solid part of a partially slatted concrete floor made pre-soaking a viable option with that type of facility (saving approximately 42 seconds per square metre), but pre-soaking a fully slatted concrete floor only saved an insignificant 12 seconds per square metre compared to no pre-soaking.

They found, however, that the choice of high-pressure sprayer nozzle can have a big impact on water consumption, man-hours and cleanliness. A conventional single-nozzle sprayer was found to consume the least amount of water and time on both partially and fully slatted floors. Its high impact pressure also meant it was good at breaking up and washing out encrusted manure. The four-in-one nozzle produced the highest impact pressure, but its cleaning coverage was very limited, increasing both time and water consumption. The Y nozzle created a cleaning zone almost twice that of the conventional nozzle, but its impact pressure was less, increasing water consumption. The water broom had the largest cleaning zone but the lowest impact pressure, and consumed the most time of all the nozzles.

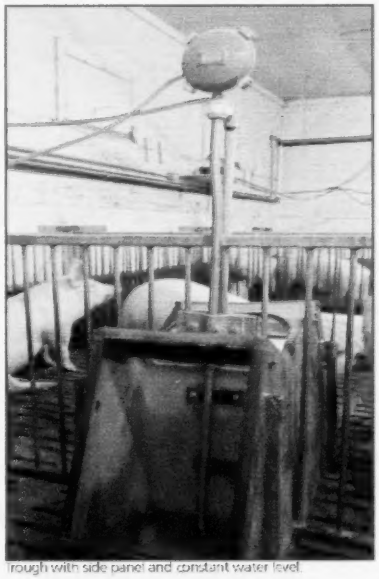
In terms of cleanliness, the conventional nozzle was best for concrete floors, eliminating 62.6 per cent of microbial contamination, followed by the Y nozzle (34.4 per cent), the four-in-one nozzle (33 per cent), and the water broom (16 per cent). However, the Y nozzle worked best on plastic pens, eliminating 81.2 per cent of microbial contamination, followed by the conventional nozzle (68.5 per cent), the four-in-one nozzle (54.9 per cent), and the water broom (53.3 per cent).

Economic feasibility

After all the in-barn experiments were completed, Dr. Predicala's team then conducted a cost analysis of the different drinkers and cleaning strategies to see if they were economically feasible.

They found that the trough cost significantly more to purchase and install (53¢ per pig) than the nipple (26¢ per pig) and nipple with side panel (39¢ per pig). Regular maintenance also took about two hours longer with the trough than the nipples. This was offset somewhat by the fact that the pigs consumed approximately 20 per cent less water with the trough than with the nipple drinkers.

Of course, all the water that goes into a pig eventually comes out, and has to be disposed of. Dr. Predicala calculated that the manure handling costs (collecting, storing and spreading) of the trough were approximately $4.90 per pig compared to $9.11 per pig for the nipple and $8.77 per pig for the nipple with side panel.



Trough with side panel and constant water level.

Adding all of the costs together (purchase, installation, maintenance, operation, water cost and manure handling), Dr. Predicala calculated that a trough resulted in a 29 per cent reduction in cost compared to a nipple drinker.

In terms of cleaning strategies, Dr. Predicala determined that pre-soaking the floor saved time (i.e. lower labour cost) but that saving was essentially wiped out by the extra water consumption.

The Agriculture Development Fund provides funding to institutions, companies and industry organizations to help them carry out research, development and value-added activities in the agriculture and agri-food sector. The results produce new knowledge, information and choices in technologies, techniques and varieties for farmers, ranchers, processors and input suppliers, to improve the competitiveness of Saskatchewan's agriculture sector.

In 2013, the Saskatchewan Ministry of Agriculture committed $9.9 million in new funding for 61 ADF research projects.

FOR MORE INFORMATION

- Visit the Saskatchewan Agriculture research reports page at www.agriculture.gov.sk.ca/ADF/Search and enter report number #20090310 into the search function.

Triticale versus barley for swath grazing

by Linda Hunt, AAg
Regional Forage Specialist, Prince Albert
Regional Services Branch

Throughout Western Canada, producers are taking advantage of high commodity prices by shifting land from perennial forage into annual crops. At the same time, livestock numbers remain steady and the industry is optimistic for good returns. These market pressures have increased interest in growing forages with maximum carrying capacities.

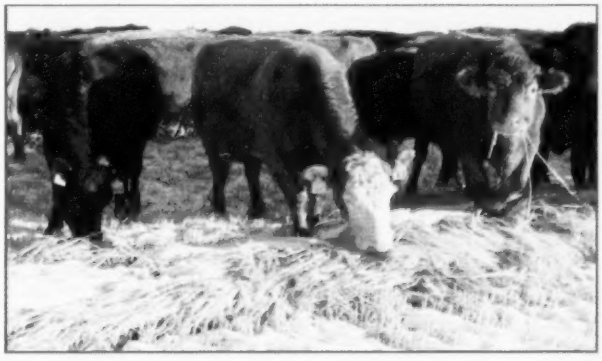
At the Saskatchewan Beef Industry Conference in Saskatoon, Dr. Vern Baron presented findings from a swath grazing trial conducted in Lacombe, Alberta that compared the carrying capacities of triticale and barley for swath grazing. In this study, triticale achieved almost double the carrying capacity of barley. This finding is in contrast to the forage variety trials done here in Saskatchewan which show triticale yields to be equal to or slightly below that of forage barley. The contrast has many people scratching their heads, but the explanation becomes clear with a closer look.

The triticale advantage becomes apparent when it is seeded earlier than barley in a swath grazing situation. Typically, barley for swath grazing is seeded mid-to-end of June so it is at the soft dough stage as close to freeze up as possible, maximizing forage quality. Delayed seeding after May 10 has a negative impact on barley biomass yield. Barley is photosensitive; therefore, a late seeding date results in a shorter duration of vegetative growth. However, triticale is not photosensitive and will grow at a consistent rate regardless of seeding date. This lack of photosensitivity coupled with a high number of days to maturity (105-130 for triticale compared to 80-110 for barley), results in the higher carrying capacity in a swath grazing system.

It is clear from variety trials in Saskatchewan that when barley and triticale are seeded at the recommended mid-June for swath grazing, they have comparable production. Similar results were found when triticale and barley were grown for silage (Alberta Seed Guide, 2013). The triticale advantage over barley seems to be that it can be seeded earlier to utilize spring moisture and has a longer growing season. This summer variety trials at five Agri-ARM sites will compare Bunker and Tyndall Triticale with CDC Cowboy Barley, CDC Baler Oats and golden German Millet for yield.

FOR MORE INFORMATION

- A more detailed description of Dr. Baron's research can be found in the April 2013 edition of the Canadian Cattlemen's Magazine titled "Tighten Up With Triticale" and a copy of the presentation he gave at the Saskatchewan Beef Industry Conference in Saskatoon can be found at www.saskbeefconference.com/presentations.html.
- For more information on the yield variety trials happening this year in Saskatchewan contact Linda Hunt, the Regional Forage Specialist in Prince Albert at 306-953-2361 or email linda.hunt@gov.sk.ca.



HAY SALVAGE AND DITCH MOWING PROGRAM

by the Saskatchewan Ministry of Highways and Infrastructure

The Ministry of Highways and Infrastructure is once again offering hay for salvage at no cost in provincial highway ditches.

Hay can be salvaged at any time during the spring or summer months. Prior to July 8, landowners or lessees nearest/adjacent to the ditch have the first option to cut or bale material, but after that anyone may cut and bale the material without permission from the nearby property-owner, as long as no salvage operations have already begun by the landowner.

Hay must be cut neatly at a uniform height and bales must be placed at least eight metres away from the highway shoulder. Bales must be removed by Aug. 8 and any left after that, which are deemed to be hazardous to motorists, may be removed by the Ministry of Highways and Infrastructure.

"Maximizing the use of hay is a benefit to producers, but we also see additional benefits such as the control of brush and noxious weeds, optimal snow storage in ditches which reduces road drifting during the winter months and safer intersections and highway curves," Highways and Infrastructure Minister Don McMorris said. "Motorists will benefit from improved sightlines which will help them see any approaching wildlife."

Ditch Mowing

The Ministry is also working on its annual early mowing program, which takes place between June 7 and July 15 along high-traffic highways. Ministry contractors will cut a four-metre wide swath along shoulders adjacent to Highways 1, 7, 11, 16 and 39, along with portions of Highways 2, 3, 4, 5, 6, 9, 10 and 55. During this time, mowing may also be completed near some highway intersections and interchanges, railway crossings and tourism facilities.

"Striking a balance between the needs of different stakeholder groups and delivering a cost-effective program is key," McMorris said. "Contractors will be called upon to help improve the sightlines and overall aesthetics for the travelling public, while producers have the opportunity to use the feed for livestock."

Regular ditch mowing will be carried out by Ministry contractors along all four-lane highways between July 15 and the fall. A four-metre-wide strip will be mowed adjacent to the other highways with additional mowing as required to ensure visibility and weed control. The progress of contracted mowers in hay operations will be dependent on the weather and ditch conditions.

FOR MORE INFORMATION

- Contact your nearest Ministry of Highways and Infrastructure office or email communications.HI@gov.sk.ca.

IMPORTANT DATES

June 7 to July 15: Ministry mowing includes a four-metre shoulder cut immediately adjacent to the road surface on all highways within the Gateway Corridor Network; the National Highway System is included in this category. Some highway intersections may receive a full ditch cut to ensure good sight distance.

Before/After July 8: Before this date, a landowner or lessee nearest to a highway ditch has the first option to cut or bale the hay. After this date, anyone may cut and bale hay or grass in a highway ditch without getting the permission of the nearby landowner, provided salvage operations haven't started already.

July 15 to Fall: After this, Ministry contractors will begin mowing the entire width of ditches along all four-lane highways, while all other highways will get a four-metre cut adjacent to the highway shoulder. Some additional mowing may occur.

Growing Forward 2

AgriStability barriers reduced

Since taking over administration of AgriStability in 2010, the Saskatchewan Crop Insurance Corporation (SCIC) has been working to provide tools and support in an effort to make the program easier to use by both producers and accountants.

One of the items which had been asked for was the ability to complete and submit forms through an online process. In 2012, SCIC introduced AgConnect, a web-based application for reviewing historical program information, as well as completing and submitting forms electronically. The response to this platform has been excellent, both from participants, who have taken advantage of the easy-to-use format and from agencies which have been able to expedite the process of submitting program forms on behalf of their clients.

While AgConnect has streamlined the process of submitting AgriStability information, it has also created an avenue for greater awareness of a participant's detailed program figures. Through AgConnect, participants can view their historical program information, such as previous Calculation of Benefits and program fees. AgConnect also shows what forms have been submitted. Access to this information was not previously available to participants and their accountants. By making such information easily accessible there is greater awareness of how the AgriStability program works.

SCIC has also focused on providing greater access to the resources a participant needs to manage the program. AgriStability Advisors are available through the 21 customer service offices across the province. Their knowledge of Saskatchewan's farming and ranching sector, combined with their comprehensive understanding of the AgriStability Program, makes them a great resource for participants and accountants. They can educate and advise on how to effectively use the AgriStability Program.

Support for the AgriStability Program is just a phone call away. SCIC's AgriStability Call Centre can be accessed at 1-866-270-8450 and a knowledgeable person who understands agriculture can answer questions and investigate concerns. Participants who want to start using AgConnect can also contact the call centre to access the online system. Another way to access support is through the 21 Customer Service Offices across the province. At those locations producers can meet face-to-face and talk one-on-one with knowledgeable staff about the AgriStability Program.

While it may be challenging, SCIC is working to bring down the barriers to using the AgriStability Program.

IMPORTANT DEADLINE REMINDER FOR CROP INSURANCE CUSTOMERS

Saskatchewan Crop Insurance contract holders are reminded June is the month to report your seeded acres and stored grain. The Saskatchewan Crop Insurance Corporation (SCIC) issues packages to customers in early June that include Seeded Acreage Report forms. The forms contain all land currently registered on customer's contracts and are accompanied by a Stored Grain Declaration form and instruction guide.

The Seeded Acreage Report accounts for all insured and uninsured crops seeded in 2013, including crop variety, seeding dates and land type seeded into (stubble, summerfallow or irrigation). Please ensure your seeded acres, too wet to seed acres and summerfallow acres match your total cultivated acres. Record all previous production stored on your farm on the Stored Grain Declaration, otherwise it may be considered new production. **Accurate completion of both forms will reduce errors in premiums, coverage and claim calculations.**

The deadline to submit your Seeded Acreage Report is June 25. Producers have until July 5 to report seeded greenfeed acres.

An instruction guide is available to assist in the completion of the Seeded Acreage Report and Stored Grain Declaration. Additional assistance is available by contacting your local Crop Insurance office.

Unseeded Acreage

Customers who have acres too wet to seed are eligible for $70 per acre compensation.

Producers had the opportunity to select an additional $15 or $30 per eligible acre in coverage through the Unseeded Acreage Buy-Up Option. With the $30 option, total compensation would be $100 per eligible acre.

June 25 is also the deadline to register Unseeded Acreage claims.

FOR MORE INFORMATION

- Contact the nearest Crop Insurance office;
- Call 1-888-935-0000; or
- Visit www.saskcropinsurance.com.

Ag in the City: successful in raising awareness of agriculture

by Jonathan Tremblay
Communications Consultant
Communications Branch

On April 13, Saskatoon's Mall at Lawson Heights was home to an agriculture awareness initiative called *Ag in the City*. The goal was to help urban audiences discover agriculture and the role it plays in their daily lives.

Fifteen exhibitors, ranging from commodity groups and non-profits, to research organizations and those selling locally-produced food products were on hand, along with an educational *Kid's Zone* courtesy of Ag in the Classroom, and plenty of main stage activities. About 6,000 people stopped at the event.

"This certainly was a worthwhile event to be part of," Communications Manager for Sask Pork, Kim Browne said. "The general population has little or no connection to the farming community or knowledge of modern agricultural practices. This was a great opportunity for people to ask questions and discover where their food comes from."

One of the main stage highlights included a pie contest and auction, where local home-ec classes were asked to bake various savoury and non-savoury pies featuring ingredients from participating commodity groups.

Another highlight was the Black Box Cook-Off Challenge, organized by Saskatchewan Pulse Growers. Three local chefs were pitted against each other in a 40-minute Top Chef-style challenge to use standard ingredients along with a box of mystery ingredients from Saskatchewan to create a winning dish. Chef Simon Reynolds of Simon's Fine Foods narrowly edged out the competition with his pasta and poached pork with vegetables in cream sauce and a salsa bean salad.

"It was great to see so many facets of agriculture promoting themselves under one roof," Carmen Ly, Communications Director at the Saskatchewan Food Centre said. "People have a general sense that agriculture is important to Saskatchewan's economy, but most don't realize how that impacts them directly or how you can work in the industry without being a farmer."

From beef by-products used in soap production to biotechnology in vaccines to the education available at the College of Agriculture and Biosciences, visitors saw it all - and by all accounts, wanted to see more. Another *Ag in the City* is already being planned for next year.

FOR MORE INFORMATION
Visit www.celebrateagriculture.ca.

SASKATCHEWAN AGRICULTURE RECOGNIZES LONG-TIME CROP REPORTERS

by Shannon Friesen, PAg
Regional Crops Specialist, Weyburn
Regional Services Branch

The Saskatchewan Ministry of Agriculture is very fortunate to have the services of dedicated and valued volunteer crop reporters during the busy farming season. The weekly Crop Report is an important information source for many people in the agriculture industry and the report is dependent on the commitment of many volunteers.

Eight volunteer crop reporters and their spouses were recently honoured in Regina for their contributions to the Crop Report for 25, 30 and 35 years. The day included a tour of the Legislative Building, lunch with Agriculture Minister Lyle Stewart and Deputy Minister of Agriculture Alanna Koch and a presentation of appreciation gifts. Minister Stewart also introduced the crop reporters to the members of the Legislative Assembly during session and expressed his appreciation.

This year's recipients included:

25 year crop reporters: Campbell and Mearl Smith, R.M. of Shamrock, No. 134.

30 year crop reporters: Murray and Penny Janis, R.M. of Glen Bain, No. 105; Lawrence and Margaret Beckie, R.M. of McCraney, No. 282; George and Mildred Fast, R.M. of Rosemount, No. 378; and Keith and Eunice Stacey, R.M. of Moose Range, No. 486.

35 year crop reporters: Glen and Elizabeth MacKenzie, R.M. of Pinto Creek, No. 75; Dave and Irene Ehman, R.M. of Craik, No. 222; and Cecil and Mary Reimer, R.M. of Barrier Valley, No. 397.

Congratulations, and thank you for your continued service.

FOR MORE INFORMATION or to become a volunteer Crop Reporter:

- Contact the Agriculture Knowledge Centre at 1-866-457-2377.

Interested in becoming a volunteer crop reporter? Contact us.
It's easier than ever with the introduction of new online crop reporting tools. The use of these online tools allows crop reporters to submit information from computers or smart phones.

Why agriculture, now more than ever, is a vibrant, diverse industry- the Saskatchewan Agriculture Student Scholarship.

The Ministry of Agriculture is pleased to award 10 deserving Grade 12 students from across the province with $1,000 through the Saskatchewan Agriculture Student Scholarship Program.

The scholarship winners are all recent graduates who are planning to take agriculture-related post-secondary education beginning in the fall of 2013. Winners were selected on the merit of their application. Applicants were given the option to submit either a 750-word essay or a three-minute video on "why agriculture, now more than ever, is a vibrant, diverse industry." In addition to their submission, candidates were asked to provide a letter of recommendation from a teacher, agriculture industry leader or community leader.

This year's submissions provide assurance that the future of Saskatchewan's agriculture industry is in good hands and its future is bright. The submissions demonstrated creativity, progressive thinking and resourcefulness, all of which will be great assets to these future leaders as they pursue careers in agriculture.

The Ministry of Agriculture would like to thank all of the applicants for their submissions and wish them a successful career in agriculture – an industry that is strong, vibrant, diverse and a driver of our economy.

To view the winning submissions visit www.agriculture.gov.sk.ca/scholarships.

FOR MORE INFORMATION

- Email agriculture.scholarship@gov.sk.ca; or
- Visit www.agriculture.sk.ca/Scholarships.

CONGRATULATIONS TO THIS YEAR'S WINNERS:

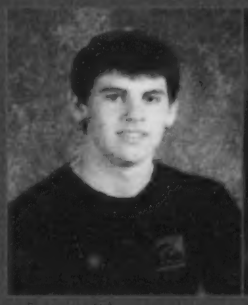
Kaitlyn Polegi, Jedburgh

Samantha McKee, Turtleford

Bethany Harland, Frenchman Butte

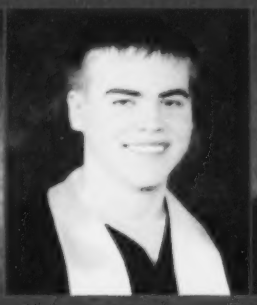
Sheldon Moellenbeck, Humboldt

Sydney Lake, Turtleford



Ryan Olson, Penzance

Bailey Wilson, Tugaske



Kenton May, Riverhurst

Brett Bowes, Kamsack

Jonathan Neigum, Unity

EVENTS CALENDAR

DATE	EVENT	LOCATION	PHONE	INTERNET
June 9 - 11, 2013	Saskatchewan Stock Growers Association 100th Convention and Annual General Meeting	Moose Jaw, SK	306-757-8523	
June 15, 2013	Deadline for planting potatoes (seed varieties).	Saskatchewan Crop Insurance Corporation	888-935-0000	
June 18 - 19, 2013	2013 Pasture School	McKenna Hall Weyburn, SK	306-969-2666	
June 19 - 21, 2013	Canada's Farm Progress Show	Evraz Place Regina, SK	306-781-9200	
June 25, 2013	Deadline to submit Seeded Acreage Report on all crops. *Deadline to submit Unseeded Acreage claims. Deadline to report stored grain. Deadline to submit Hive Reporting form. Deadline to submit Stored Honey Report	Saskatchewan Crop Insurance Corporation	888-935-0000	
June 25, 2013	Western Beef Development Centre's Annual Summer Field Day	Termuende Research Ranch Lanigan, SK	306-682-3139	
June 25 - 27, 2013	Weed Management Workshop	Humboldt, Davidson, Rosetown, SK	1-866-457-2377	

2013 Agri-ARM field Days

The Saskatchewan Agri-ARM (Agriculture-Applied Research Management) Program connects eight regional applied research and demonstration sites into a province-wide network. Each location has an affiliated producer group that sets the research priorities for that site. For a description of each site and contact information, visit www.agriculture.gov.sk.ca/Agri-ARM.

Agri-ARM provides the forum for government, producers, researchers and industry associations to partner on provincial and regional projects.

Agri-ARM's objectives are:

- To increase the adoption of new agricultural production technologies and practices;
- To provide farmers with more tools for environmental and economic decision-making;
- To develop and maintain an adequate level of infrastructure and expertise for regional applied research and demonstration; and
- To increase public awareness of agriculture's role in environmental stewardship and the overall economy.

Each Agri-ARM location has an annual Field Day to showcase the research and demonstrations that are being done at that location.

Come join us at the Agri-ARM Field Days to learn about local research and talk to the researchers, agrologists and producers in your area.

The dates and contact information for the 2011 Field Days are:

Date	Event	Location	Phone
July 11	**CSIDC Field Day**	Outlook	306-867-5524
July 11	**Wheatland Conservation Area Field Day**	Swift Current	306-778-8285
July 17	**South East Research Farm Field Day**	Redvers	306-452-3161
July 17	**Western Applied Research Corporation Field Day**	Scott	306-247-2001
July 23	**Indian Head Agricultural Research Foundation Field Day**	Indian Head	306-695-4200
July 24	**Northeast Agriculture Research Foundation Field Day**	Melfort	306-752-2776
July 25	**Conservation Learning Centre Field Day**	Near Prince Albert	306-960-1834

East Central Research Foundation does not have a scheduled field day for 2013.

Dealing with Excess Moisture

Information and resources to help farmers dealing with excess moisture are available on the Ministry website at www.agriculture.gov.sk.ca/excess-moisture.

Government of Saskatchewan
Ministry of Agriculture